

# Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection

Downloaded from <a href="https://aidsinfo.nih.gov/guidelines">https://aidsinfo.nih.gov/guidelines</a> on 8/31/2020

Visit the AIDSinfo website to access the most up-to-date guideline.

Register for e-mail notification of guideline updates at <a href="https://aidsinfo.nih.gov/e-news">https://aidsinfo.nih.gov/e-news</a>.

Appendix A, Table 2. Antiretroviral Fixed-Dose Combination Tablets: Minimum Body Weights and Considerations for Use in Children and Adolescents (Last updated April 14, 2020; last reviewed April 14, 2020) (page 1 of 4)

This table may include recently approved FDC tablets that have not yet been added to the individual drug sections in <u>Appendix A: Pediatric Antiretroviral Drug Information</u>.

#### **General Considerations When Using FDC Tablets:**

- For children weighing ≥25 kg, the Panel recommends using one of the following single-tablet, once-daily regimens: Triumeq (ABC/DTG/3TC), Genvoya (EVG/c/FTC/TAF), or Biktarvy (BIC/FTC/TAF).
- ABC and TAF are favored over ZDV because of the lower risk of NRTI-associated mitochondrial toxicity.
- TDF is more potent than ABC at high viral loads when used in regimens that do not contain an INSTI.
- TAF is favored over TDF because of the lower risk of TDF-associated bone and renal toxicity.
- TDF is generally not recommended for children with SMRs of 1–3 because of TDF-associated bone toxicity; however, for a child weighing <25 kg who can swallow pills, Truvada (FTC/TDF) low-strength tablets offer a reasonable, once-daily alternative to twice-daily ZDV plus 3TC or ABC.
- RPV has low potency at high viral loads, a low barrier to resistance, and requires a high-fat meal for optimal absorption, so EFV or an INSTI are favored over RPV.
- BIC and DTG, the second-generation INSTIs, have a higher barrier to resistance than the first-generation INSTIs EVG and RAL.
- For images of most of the FDC tablets listed in this table, see the Antiretroviral Medications section of the National HIV Curriculum. In addition, a resource from the United Kingdom illustrates the relative sizes of FDC tablets and individual ARV drugs (see the ARV Chart). Although most of the drugs listed in that chart are the same as those in the United States, a few of the brand names are not the same as those listed in Appendix A, Table 2.
- FDC tablets and individual ARV drugs can also be looked up by drug name (brand name and generic) at <u>DailyMed</u>; size is listed under the Ingredients and Appearance section.

#### **INSTI FDC Dosing for Children and Adolescents**

### *Elvitegravir*:

• Genvoya (EVG/c/FTC/TAF) is approved by the FDA for children and adolescents weighing ≥25 kg.

## *Dolutegravir*:

- The Panel recommends DTG 50 mg for children and adolescents weighing  $\geq$ 20 kg (see the <u>Dolutegravir</u> section). The FDA-approved dose is DTG 35 mg for patients weighing  $\geq$ 30 kg to 40 kg, and DTG 50 mg for patients weighing  $\geq$ 40 kg.
- For children weighing ≥25 kg, DTG 50 mg can be given as Triumeq (ABC/DTG/3TC) in one large pill or as Descovy (FTC/TAF) plus DTG, which requires two small pills.
- Exposure to DTG around the time of conception has been associated with a small, but significant, increase in the risk of infant NTDs. Additional information and specific recommendations about the initiation and use of DTG in adolescents and women of childbearing potential and in those who are pregnant or who are trying to conceive are available in the Adult and Adolescent Antiretroviral Guidelines (see <u>Table 6b</u> and <u>Adolescents</u>

Appendix A, Table 2. Antiretroviral Fixed-Dose Combination Tablets: Minimum Body Weights and Considerations for Use in Children and Adolescents (Last updated April 14, 2020; last reviewed April 14, 2020) (page 2 of 4)

and Young Adults with HIV) and in the Perinatal Guidelines (see <u>Teratogenicity</u>, <u>Recommendations for Use of Antiretroviral Drugs During Pregnancy</u>, and <u>Appendix D: Dolutegravir Counseling Guide for Health Care Providers</u>).

## Bictegravir:

• Biktarvy (BIC/FTC/TAF) is now approved by the FDA for use in children and adolescents weighing ≥25 kg.

<b>FDC by Class</b> Brand name and generic <sup>a</sup> products, when available	FDC Components	Minimum Body Weight (kg) or Age <sup>b</sup>	Pill Size (mm x mm) or Largest Dimension (mm)	Food Requirements
NRTI				
Cimduo	3TC 300 mg/TDF 300 mg	35 kg	19	Take with or without food
Combivir	3TC 150 mg/ZDV 300 mg (scored tablet)	30 kg	18 x 7	Take with or without food
and				
Generic 3TC/ZDV				
Descovy	FTC 200 mg/TAF 25 mg	With an INSTI or NNRTI: • 25 kg	12.5 x 6.4	Take with or without food
		With a Boosted PI: • 35 kg		
Epzicom	ABC 600 mg/3TC 300 mg	25 kg	21 x 9	Take with or without food
and				
Generic ABC/3TC				
Temixys	3TC 300 mg/TDF 300 mg	35 kg	N/A	Take with or without food
Trizivir	ABC 300 mg/3TC 150 mg/ZDV 300 mg	40 kg (FDA)	21 x 10	Take with or without food
and		30 kg (Panel)°		
Generic ABC/3TC/ZDV		3 ( 3 ,		
Truvada	FTC 200 mg/TDF 300 mg	35 kg	19 x 8.5	Take with or without food
Truvada Low Strength	FTC 167 mg/TDF 250 mg	28 kg	18	Take with or without food
	FTC 133 mg/TDF 200 mg	22 kg	16	Take with or without food
	FTC 100 mg/TDF 150 mg	17 kg	14	Take with or without food
NRTI/NNRTI				
Atripla	EFV 600 mg/FTC 200 mg/TDF 300 mg	40 kg	20	Take on an empty stomach
Complera	FTC 200 mg/RPV 25 mg/TDF 300 mg	35 kg and aged ≥12 years	19	Take on an empty stomach
Delstrigo	DOR 100 mg/3TC 300 mg/TDF 300 mg	Adults	19	Take with or without food
Odefsey	FTC 200 mg/RPV 25 mg/TAF 25 mg	35 kg and aged ≥12 years	15	Take with a meal

Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection

Appendix A, Table 2. Antiretroviral Fixed-Dose Combination Tablets: Minimum Body Weights and Considerations for Use in Children and Adolescents (Last updated April 14, 2020; last reviewed April 14, 2020) (page 3 of 4)

FDC by Class  Brand name and generic <sup>a</sup> products, when available	FDC Components	Minimum Body Weight (kg) or Age <sup>b</sup>	Pill Size (mm x mm) or Largest Dimension (mm)	Food Requirements		
NRTI/NNRTI, continued						
Symfi	EFV 600 mg/3TC 300 mg/TDF 300 mg (scored tablet)	40 kg	23	Take on an empty stomach		
Symfi Lo	EFV 400 mg/3TC 300 mg/TDF 300 mg	35 kg <sup>d</sup>	21	Take on an empty stomach		
NRTI/INSTI						
Biktarvy	BIC 50 mg/FTC 200 mg/TAF 25 mg	25 kg	15 x 8	Take with or without food		
Dovato	DTG 50 mg/3TC 300 mg	Adults <sup>e</sup>	19	Take with or without food		
Triumeq	ABC 600 mg/DTG 50 mg/3TC 300 mg	40 kg (FDA)	22 x 11	Take with or without food		
		25 kg (Panel) <sup>f</sup>				
NNRTI/INSTI			-	1		
Juluca	DTG 50 mg/RPV 25 mg	Adults	14	Take with a meal		
NRTI/INSTI/COBI		'		'		
Genvoya	EVG 150 mg/COBI 150 mg/FTC 200 mg/TAF 10 mg	25 kg	19 x 8.5	Take with food		
Stribild	EVG 150 mg/COBI 150 mg/FTC 200 mg/TDF 300 mg	35 kg and ≥12 years <sup>g</sup>	20	Take with food		
NRTI/PI/COBI		·	,			
Symtuza	DRV 800 mg/COBI 150 mg/FTC 200 mg/TAF 10 mg	40 kg	22	Take with food		
PI/COBI						
Evotaz	ATV 300 mg/COBI 150 mg	35 kg	19	Take with food		
Prezcobix	DRV 800 mg/COBI 150 mg	40 kg	23	Take with food		
PI/RTV		·				
Kaletra	LPV/r Oral Solution: • LPV 80 mg/mL and RTV 20 mg/mL	Post-Menstrual Age of 42 Weeks and a Postnatal Age of ≥14 Days:	19	Take with or without food		
	Tablets: • LPV 200 mg/RTV 50 mg • LPV 100 mg/RTV 25 mg	No minimum weight				

<sup>&</sup>lt;sup>a</sup> Size or largest dimension of generic drugs are not listed because they may vary by manufacturer; this information is available by looking up one of the drug components using <u>DailyMed</u>.

<sup>&</sup>lt;sup>b</sup> Minimum body weight and age are those recommended by the FDA, unless otherwise noted.

c Based on the current FDA-approved minimum body weights for the component drugs of Trizivir, the Panel suggests that Trizivir be used at a minimum body weight of ≥30 kg, although it is approved by the FDA for use in children and adolescents weighing ≥40 kg. However, the Panel does not recommend using regimens that only contain NRTIs, or using three-NRTI regimens, in children.

d Due to PK concerns, the Panel recommends caution when using Symfi Lo in children and adolescents who have SMRs of 1–3 and weigh ≥40 kg (see the Efavirenz section).

Appendix A, Table 2. Antiretroviral Fixed-Dose Combination Tablets: Minimum Body Weights and Considerations for Use in Children and Adolescents (Last updated April 14, 2020; last reviewed April 14, 2020) (page 4 of 4)

- e The Panel does not currently recommend using Dovato as a 2 drug complete regimen in adolescents and children. This FDC tablet could be used as part of a three-drug regimen in children who meet the minimum body weight requirements for each component drug.
- <sup>f</sup> The Panel recommends using DTG 50 mg for children and adolescents weighing ≥20 kg based on available data. However, the doses of ABC and 3TC in Triumeq are too high for children weighing <25 kg (see the <u>Dolutegravir</u> section).
- ¶ Although Stribild is approved by the FDA for use in children and adolescents weighing ≥35 kg and aged ≥12 years, the Panel does not recommend using it in children or adolescents who have SMRs of 1–3.

**Key:** 3TC = lamivudine; ABC = abacavir; ARV = antiretroviral; ATV = atazanavir; BIC = bictegravir; COBI = cobicistat; DOR = doravirine; DRV = darunavir; DTG = dolutegravir; EFV = efavirenz; EVG = elvitegravir; EVG/c = elvitegravir/cobicistat; FDA = Food and Drug Administration; FDC = fixed-dose combination; FTC = emtricitabine; INSTI = integrase strand transfer inhibitor; LPV = lopinavir; LPV/r = lopinavir/ritonavir; N/A = information not available; NNRTI = non-nucleoside reverse transcriptase inhibitor; NRTI = nucleoside reverse transcriptase inhibitor; NTD = neural tube defect; the Panel = Panel on Antiretroviral Therapy and Medical Management of Children Living with HIV; PI = protease inhibitor; PK = pharmacokinetic; RAL = raltegravir; RPV = rilpivirine; RTV = ritonavir; SMR = sexual maturity rating; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; ZDV = zidovudine